

Name: \_\_\_\_\_ Date: \_\_\_\_\_ Per.: \_\_\_\_\_

## SCIENTIFIC METHOD

### PRACTICE PROBLEM #1

Certain parts of the paragraph below are underlined. Each underlined portion is one of the statements to be analyzed using the SCIENTIFIC METHOD. The key is to be used for answering questions in the paragraph. Evaluate each underlined portion according to the following key.

- KEY:
- A. Problem (stated or implied)
  - B. Hypothesis
  - C. Control
  - D. Variable
  - E. Results (if available)
  - F. Conclusion (if available)

During some years when the annual rainfall was only 1.5 centimeters, (1) the desert floor in Death Valley bloomed with a carpet of color. (2) One year when 4.2 centimeters of rain fell, there were no flowers. In order for the flowers in Death Valley to bloom in the spring, the rain must come at a certain time. (3) Flowering occurs only if there is well over one centimeter of precipitation during November or December. Rain in other months seems ineffective. In dry years the seeds lie dormant, and (4) they do not germinate even after a rain unless the amount of rainfall is at least .5 centimeter. Since the upper inch of soil, where all the viable seeds lie, is as wet after a rain of a tenth of an inch

as after one or two inches of rain, (5) the discrimination of the seeds seems difficult to explain. (6) How can a seed measure the rainfall? In the lab, if seed-containing desert soil is spread on pure sand and wet with a sprinkler, (7) the seeds will not germinate until the equivalent of one centimeter of rain has fallen on them. (8) What factor(s) assure the germination of these desert plants?

Answers:

1. \_\_\_\_\_ 5. \_\_\_\_\_

2. \_\_\_\_\_ 6. \_\_\_\_\_

3. \_\_\_\_\_ 7. \_\_\_\_\_

4. \_\_\_\_\_ 8. \_\_\_\_\_